



Advanced Information Systems Technology (AIST) Program Status Update

Presented to:
TST
November 28, 2001

Steven A. Smith
steven.a.smith@gsfc.nasa.gov

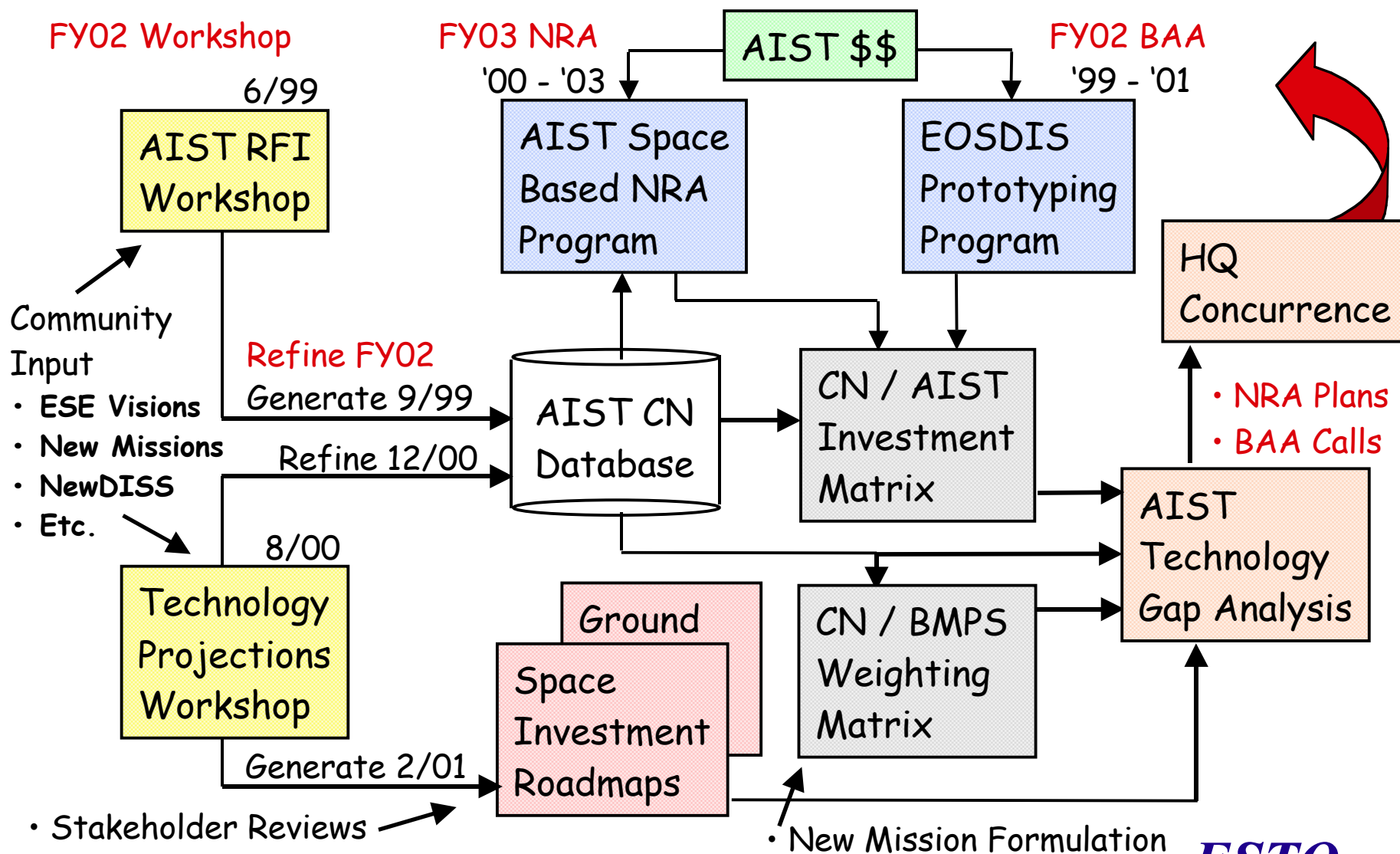


Agenda

- AIST Strategic Planning Process
- ESE SOMO Technology Recovery Approach
- AIST Technology Requirements & Projections Workshop
- AIST Prototyping System (APS) Broad Agency Announcement (BAA) Highlights
- AIST FY03 NRA Highlights



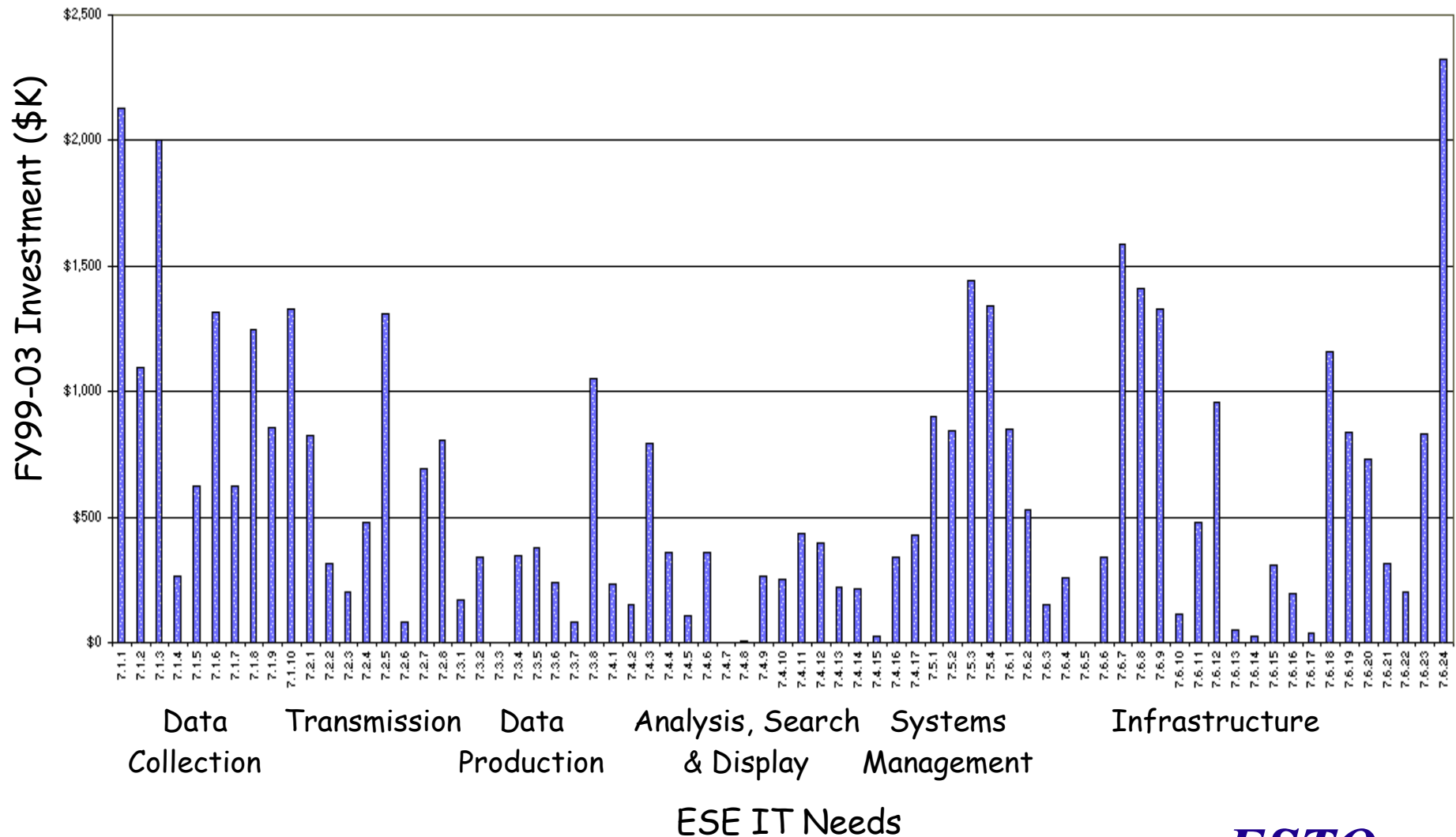
AIST Strategic Planning Process Overview





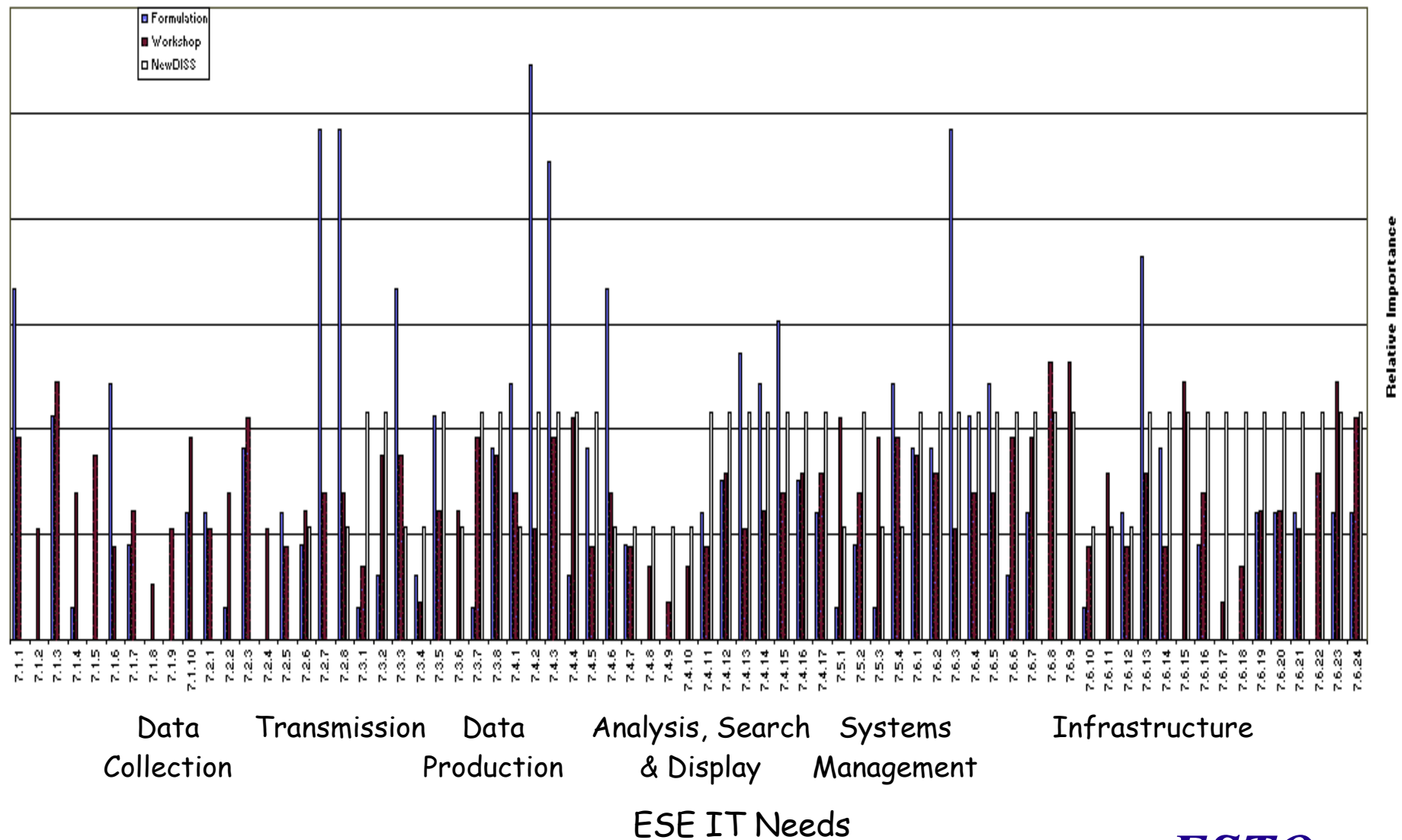
AIST FY99-03 Investment Analysis

AIST TECHNOLOGY INVESTMENT MAP



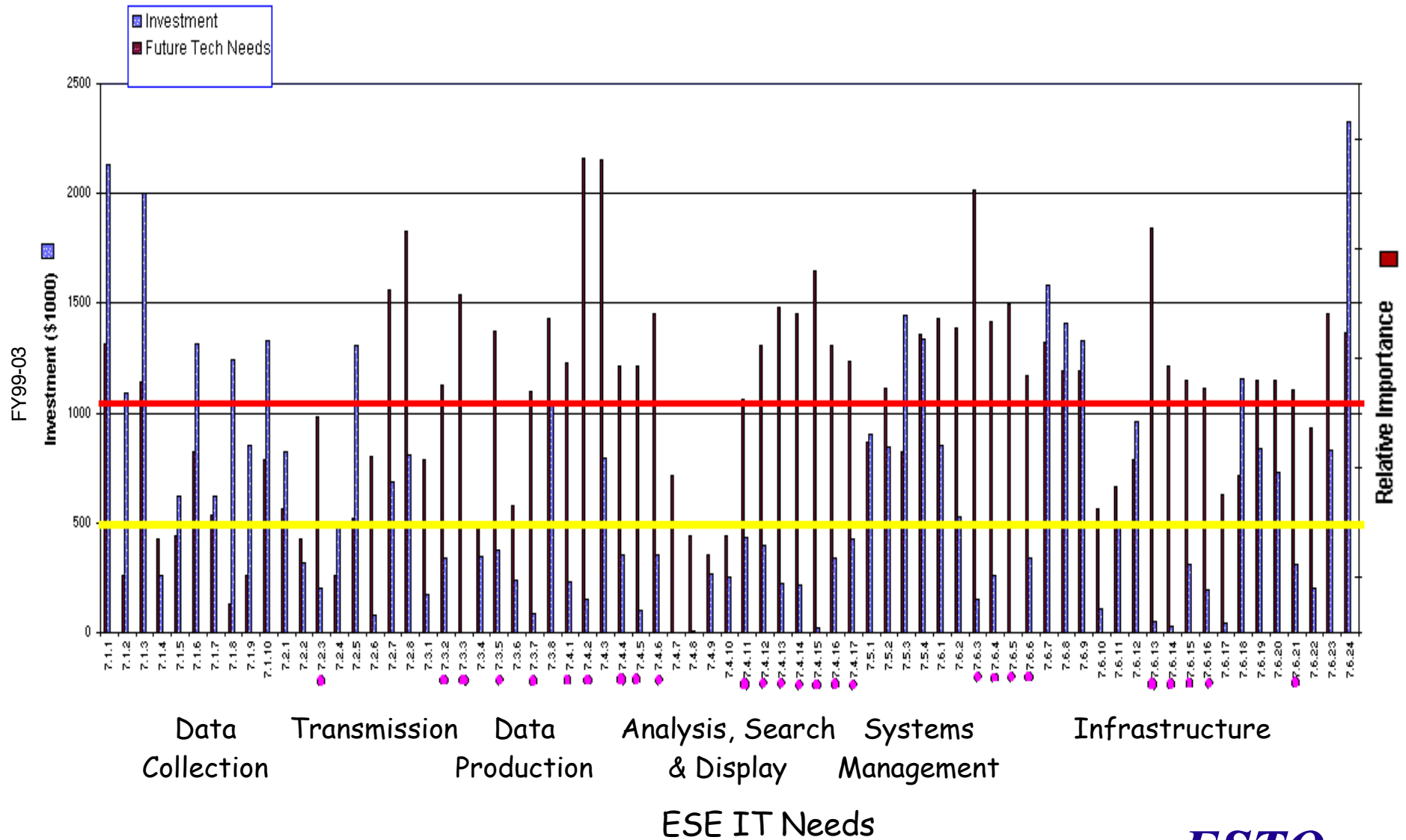


AIST CN Weighting Results





AIST Investment Gap Analysis





ESE SOMO Technology Recovery Approach

- Review existing SOMO Work Area *Technology*¹ Plans from all SOMO-funded Centers for applicability to ESE requirements.
- Apply ESTO \$5M re-programming as best helps ESE & treat as any other ESTO technology effort.
- Hold second ESTO AIST Workshop January 9-10, 2002. New "SOMO", along with *all* other ESE information systems requirements, will be assessed for relevance.
- Work with Codes M, R and S to leverage common technology requirements and funding. Identify gaps.
- K. Moe/S. Smith have been appointed by HQ to represent the Earth Science Enterprise's interests on the Architecture /Technology Steering Groups.
- Identify additional funding needed and sources.
- Starting in FY '03 include "SOMO-omitted" technologies into regular ESTO AIST Program solicitations.
- Use existing ESTO NRAs, BAA, partnering, technology maturation,... approaches to develop needed technologies.

1. Technology only: not upgrades, circuits, operations, nor mission-unique technologies...

Summary: Treat as new requirements within existing ESTO AIST program.



ESE SOMO Technology FY02 Process

- ESTO establishes SOMO technology evaluation criteria
 - Identify mission relevancy (e.g., ESDIS spreadsheet) and infusion plans
 - Consider ESTO investments that leverage existing SOMO efforts
- ESTO provides funding guidance for center task plans
- ESTO reviews center plans for use of funding
 - GRC
 - GSFC
- ESTO coordinates and reviews allocations with SOMO Technology Steering Group
 - Assure adequate matching funds where required; or adjust effort.
- FY02 funds must be reprogrammed between UPN, funds won't be available any sooner than February 2002
- Allocate and obligate funds as soon as possible.
- Project reporting will be via ESTO e-Books
- Projects need a close out plan for end of FY02



ESE SOMO Technology FY03 Impacts

- AIST FY03 budget of \$9.8M now must address
 - Onboard technology based AIST NRA (final year funds)
 - FY03 new NRA (current plan focuses on NewDISS technology and follow on to selected on-board technologies)
 - BAA solicitations for technology gap analysis
 - Mission operations technology drivers (SOMO focus)
- ESTO Technology Development Plan calls for AIST NRAs to use 75 - 80% of the AIST budget, with remaining funds allocated to BAA and technology collaborations and follow-ons
- Adding the SOMO technology requirements will necessitate dilution of the NRA funds
 - FY00 NRA had 30 awards ranging from ~\$500K to \$1,500K over 2 to 3 years
 - With no additional funds, next NRA would be limited to shorter duration, fewer awards, or less frequent cycles



AIST Technology Requirements & Projections Workshop

- Workshop planned (January 9-10, 2002) to refine technology needs and projections against the backdrop of:
 - August 2000 AIST Technology roadmaps
 - AIST Needs database
- Workshop divided into two panels:
 - Missions Users
 - Data Users
- Panel membership comprised of representation from:
 - ESE missions in formulation or planning
 - NewDISS
 - Current AIST funded PIs
 - Current SOMO funded PIs
- Output will consist of updated roadmaps and needs database with all currently planned missions, SOMO, and NewDISS IT requirements validated and included



AIST Prototyping System (APS) BAA Highlights

- Goals
 - Complement the NRA process for filling technology gaps
 - Leverage dynamic information technology environment
 - Reduce acquisition time from 16 months (worst case AIST experience) to 4 months
- Approach
 - 5 year BAA sets the guidelines for competition issued at Center
 - Solicitations to fill technology gaps are presented to HQ for concurrence before release and award
 - Peer-review, selection & award managed at Center/ESTO
- Mechanics
 - Use ESTO e-Books to manage solicitation & award process
 - 2 to 4 solicitations per year
 - Period of performance < 24 months; awards from \$50 - \$300K/year
 - Yearly awards averaging < \$1.5M/year (10% of AIST budget)



AIST FY03 NRA Highlights

- AIST FY03 NRA planned to be focused on key areas of space-based IT and NewDISS requirements
- NRA will be issued at HQ
- Source selection official will be OES AA
- Solicitation planned to be released in July 2002
 - Earliest awards will occur in January 2003
- Awards anticipated to be in the \$300-500K/year range, for up to three years
- As a HQ solicitation, the HQ's proposal submission and management system (SYS-EFUS) will be required for use



Summary

- Hold AIST Requirements/Technology Projections Workshop January 9-10, 2002
- Release BAA in early CY02
- Prepare for FY03 NRA solicitation to be released in July 2002